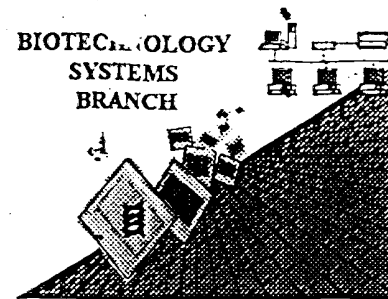


RAW SEQUENCE LISTING ERROR REPORT

BIOTECHNOLOGY
SYSTEMS
BRANCH



0430/07
0550
1207

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/884,465

Source: 01PE

Date Processed by STIC: 11/20/01

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

Raw Sequence Listing Error Summary

ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER: 091884,465

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 ☐ **Wrapped Nucleics**
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

- 2 ☐ **Invalid Line Length** The rules require that a line not exceed 72 characters in length. This includes white spaces.

- 3 ☒ **Misaligned Amino**
 Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

- 4 ☐ **Non-ASCII** The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

- 5 ☐ **Variable Length** Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

- 6 ☐ **PatentIn 2.0**
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

- 7 ☐ **Skipped Sequences**
 (OLD RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

- 8 ☐ **Skipped Sequences**
 (NEW RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000

- 9 ☒ **Use of n's or Xaa's**
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

- 10 ☐ **Invalid <213>**
 Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence

- 11 ☐ **Use of <220>** Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses.
 Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

- 12 ☐ **PatentIn 2.0**
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/884,465

DATE: 11/20/2001

TIME: 09:41:54

Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

Does Not Comply
Corrected Diskette Needed

Errors on pp. 1, 3-6, 9-11

4 <110> APPLICANT: SHIRE BIOCHEM INC.
 5 HAMEL, Jos,e
 6 OUELLET, Catherine
 7 CHARLAND, Nathalie
 8 MARTIN, Denis
 9 BRODEUR, Bernard
 11 <120> TITLE OF INVENTION: STREPTOCOCCUS ANTIGENS
 14 <130> FILE REFERENCE: 12806-19PCT
 C--> 16 <140> CURRENT APPLICATION NUMBER: US/09/884,465
 C--> 17 <141> CURRENT FILING DATE: 2001-06-20
 19 <150> PRIOR APPLICATION NUMBER: US 60/212,683
 20 <151> PRIOR FILING DATE: 2000-06-20
 E--> 22 <160> NUMBER OF SEQ ID NOS: 384 → Input 384, counted 383
 24 <170> SOFTWARE: FastSEQ for Windows Version 4.0

ERRORED SEQUENCES

1616 <210> SEQ ID NO: 72
 1617 <211> LENGTH: 31 ← length: numbers differ
 1618 <212> TYPE: DNA
 1619 <213> ORGANISM: Unknown
 1621 <220> FEATURE:
 1622 <223> OTHER INFORMATION: HAMJ 352
 1624 <400> SEQUENCE: 72
 E--> 1625 catgccatgg aagcctattg gaatgggaag c
 4842 <210> SEQ ID NO: 336
 4844 <211> LENGTH: 894
 4845 <212> TYPE: PRT
 4846 <213> ORGANISM: Unknown
 4848 <220> FEATURE:
 4849 <223> OTHER INFORMATION: VP 111
 4851 <400> SEQUENCE: 336
 4852 Met Gln Ile Thr Tyr Thr Asp Asp Glu Ile Gln Val Ala Lys Leu Ala
 4853 1 5 10 15
 4854 Gly Lys Tyr Thr Thr Glu Asp Gly Tyr Ile Phe Asp Thr Ser Trp Ile
 4855 20 25 30
 4856 Lys Lys Asp Ser Leu Ser Glu Ala Glu Arg Ala Ala Ala Gln Ala Tyr
 4857 35 40 45
 4858 Ala Lys Glu Lys Gly Leu Thr Pro Pro Ser Thr Asp His Gln Asp Ser
 4859 50 55 60
 4860 Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn Arg Val Lys
 4861 65 70 75 80
 4862 Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn Leu Gln Tyr
 4863 85 90 95
 4864 Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile Pro Ser Tyr Asp His
 4865 100 105 110

→ (30)

RAW SEQUENCE LISTING

DATE: 11/20/2001

PATENT APPLICATION: US/09/884,465

TIME: 09:41:55

Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

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4866 Tyr His Asn Ile Lys Phe Glu Trp Phe Asp Glu Gly Leu Tyr Glu Ala
4867      115      120      125
4868 Pro Lys Gly Tyr Ser Leu Glu Asp Leu Leu Ala Thr Val Lys Tyr Tyr
4869      130      135      140
4870 Val Glu Pro Arg Asn Ala Ser Asp His Val Arg Lys Asn Lys Ala Asp
4871 145      150      155      160
4872 Gln Asp Ser Lys Pro Asp Glu Asp Lys Glu His Asp Glu Val Ser Glu
4873      165      170      175
4874 Pro Thr His Pro Glu Ser Asp Glu Lys Glu Asn His Ala Gly Leu Asn
4875      180      185      190
4876 Pro Ser Ala Asp Asn Leu Tyr Lys Pro Ser Thr Asp Thr Glu Glu Thr
4877      195      200      205
4878 Glu Glu Glu Ala Glu Asp Thr Thr Asp Glu Ala Glu Ile Pro Gly Thr
4879      210      215      220
4880 Pro Ser Ile Arg Gln Asn Ala Met Glu Thr Leu Thr Gly Leu Lys Ser
4881 225      230      235      240
4882 Ser Leu Leu Leu Gly Thr Lys Asp Asn Asn Thr Ile Ser Ala Glu Val
4883      245      250      255
4884 Asp Ser Leu Leu Ala Leu Leu Lys Glu Ser Gln Pro Ala Pro Ile Gln
4885      260      265      270
4886 Gly Pro Gln Ile Gly Gln Pro Thr Leu Pro Asn Asn Ser Leu Ala Thr
4887      275      280      285
4888 Pro Ser Pro Ser Leu Pro Ile Asn Pro Gly Thr Ser His Glu Lys His
4889      290      295      300
4890 Glu Glu Asp Gly Tyr Gly Phe Asp Ala Asn Arg Ile Ile Ala Glu Asp
4891 305      310      315      320
4892 Glu Ser Gly Phe Val Met Ser Tyr Phe Phe Lys Lys Asp Leu Thr Glu
4893      325      330      335
4894 Glu Gln Ile Lys Ala Ala Gln Lys His Leu Glu Glu Val Lys Thr Ser
4895      340      345      350
4896 His Asn Gly Leu Asp Ser Leu Ser Ser His Glu Gln Asp Tyr Pro Gly
4897      355      360      365
4898 Asn Ala Lys Glu Met Lys Asp Leu Asp Lys Lys Ile Glu Glu Lys Ile
4899      370      375      380
4900 Ala Gly Ile Met Lys Gln Tyr Gly Val Lys Arg Glu Ser Ile Val Val
4901 385      390      395      400
4902 Asn Lys Glu Lys Asn Ala Ile Ile Tyr Pro Ala Asp Pro Ile Asp Glu
4903      405      410      415
4904 His Lys Pro Val Gly Ile Gly His Ser His Ser Asn Tyr Glu Leu Phe
4905      420      425      430
4906 Lys Pro Glu Glu Gly Val Ala Lys Lys Glu Gly Asn Lys Val Tyr Thr
4907      435      440      445
4908 Gly Glu Glu Leu Thr Asn Val Val Asn Leu Leu Lys Asn Ser Thr Phe
4909      450      455      460
4910 Asn Asn Gln Asn Phe Thr Leu Ala Asn Gly Gln Lys Arg Val Ser Phe
4911 465      470      475      480
4912 Ser Phe Pro Pro Glu Leu Glu Lys Lys Leu Gly Ile Asn Met Leu Val
4913      485      490      495
4914 Lys Leu Ile Thr Pro Asp Gly Lys Val Leu Glu Lys Val Ser Gly Lys

```

RAW SEQUENCE LISTING

DATE: 11/20/2001

PATENT APPLICATION: US/09/884,465

TIME: 09:41:55

Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

```

4915          500          505          510
4916 Val Phe Gly Glu Gly Val Gly Asn Ile Ala Asn Phe Glu Leu Asp Gln
4917          515          520          525
4918 Pro Tyr Leu Pro Gly Gln Thr Phe Lys Tyr Thr Ile Ala Ser Lys Asp
4919          530          535          540
4920 Tyr Pro Glu Val Ser Tyr Asp Gly Thr Phe Thr Val Pro Thr Ser Leu
4921 545          550          555          560
4922 Ala Tyr Lys Met Ala Ser Gln Thr Ile Phe Tyr Pro Phe His Ala Gly
4923          565          570          575
4924 Asp Thr Tyr Leu Arg Val Asn Pro Gln Phe Ala Val Pro Lys Gly Thr
4925          580          585          590
4926 Asp Ala Leu Val Arg Val Phe Asp Glu Phe His Gly Asn Ala Tyr Leu
4927          595          600          605
4928 Glu Asn Asn Tyr Lys Val Gly Glu Ile Lys Leu Pro Ile Pro Lys Leu
4929          610          615          620
4930 Asn Gln Gly Thr Thr Arg Thr Ala Gly Asn Lys Ile Pro Val Thr Phe
4931 625          630          635          640
4932 Met Ala Asn Ala Tyr Leu Asp Asn Gln Ser Thr Tyr Ile Val Glu Val
4933          645          650          655
4934 Pro Ile Leu Glu Lys Glu Asn Gln Thr Asp Lys Pro Ser Ile Leu Pro
4935          660          665          670
4936 Gln Phe Lys Arg Asn Lys Ala Gln Glu Asn Ser Lys Leu Asp Glu Lys
4937          675          680          685
4938 Val Glu Glu Pro Lys Thr Ser Glu Lys Val Glu Lys Glu Lys Leu Ser
4939          690          695          700
4940 Glu Thr Gly Asn Ser Thr Ser Asn Ser Thr Leu Glu Glu Val Pro Thr
4941 705          710          715          720
4942 Val Asp Pro Val Gln Glu Lys Val Ala Lys Phe Ala Glu Ser Tyr Gly
4943          725          730          735
4944 Met Lys Leu Glu Asn Val Leu Phe Asn Met Asp Gly Thr Ile Glu Leu
4945          740          745          750
4946 Tyr Leu Pro Ser Gly Glu Val Ile Lys Lys Asn Met Ala Asp Phe Thr
4947          755          760          765
4948 Gly Glu Ala Pro Gln Gly Asn Gly Glu Asn Lys Pro Ser Glu Asn Gly
E--> 4949 775          780
4950 Lys Val Ser Thr Gly Thr Val Glu Asn Gln Pro Thr Glu Asn Lys Pro
E--> 4951 785          790          795          800
4952 Ala Asp Ser Leu Pro Glu Ala Pro Asn Glu Lys Pro Val Lys Pro Glu
E--> 4953          805          810          815
4954 Asn Ser Thr Asp Asn Gly Met Leu Asn Pro Glu Gly Asn Val Gly Ser
E--> 4955          820          825          830
4956 Asp Pro Met Leu Asp Pro Ala Leu Glu Glu Ala Pro Ala Val Asp Pro
E--> 4957          835          840          845
4958 Val Gln Glu Lys Leu Glu Lys Phe Thr Ala Ser Tyr Gly Leu Gly Leu
E--> 4959          850          855          860
4960 Asp Ser Val Ile Phe Asn Met Asp Gly Thr Ile Glu Leu Arg Leu Pro
E--> 4961 865          870          875          880
4962 Ser Gly Glu Val Ile Lys Lys Asn Leu Ser Asp Phe Ile Ala
E--> 4963          885          890

```

770

(misaligned)
misnumbering
see error
summary
sheet, item 3

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/884,465

DATE: 11/20/2001

TIME: 09:41:55

Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

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5705 <210> SEQ ID NO: 343
5707 <211> LENGTH: 901
5708 <212> TYPE: PRT
5709 <213> ORGANISM: Unknown
5711 <220> FEATURE:
5712 <223> OTHER INFORMATION: VP 119
5714 <400> SEQUENCE: 343 Met Gln Ile Thr Tyr Thr Asp Asp Glu Ile Gln Val Ala Lys Leu Ala
E--> 5715 1 5 10 15
5716 Gly Lys Tyr Thr Thr Glu Asp Gly Tyr Ile Phe Asp Thr Ser Trp Ile
E--> 5717 20 25 30
5718 Lys Lys Asp Ser Leu Ser Glu Ala Glu Arg Ala Ala Ala Gln Ala Tyr
E--> 5719 35 40 45
5720 Ala Lys Glu Lys Gly Leu Thr Pro Pro Ser Thr Asp His Gln Asp Ser
E--> 5721 50 55 60
5722 Gly Asn Thr Glu Ala Lys Gly Ala Glu Ala Ile Tyr Asn Arg Val Lys
E--> 5723 65 70 75 80
5724 Ala Ala Lys Lys Val Pro Leu Asp Arg Met Pro Tyr Asn Leu Gln Tyr
E--> 5725 85 90 95
5726 Thr Val Glu Val Lys Asn Gly Ser Leu Ile Ile Pro His Tyr Asp His
E--> 5727 100 105 110
5728 Tyr His Asn Ile Lys Phe Glu Trp Phe Asp Glu Gly Leu Tyr Glu Ala
E--> 5729 115 120 125
5730 Pro Lys Gly Tyr Ser Leu Glu Asp Leu Leu Ala Thr Val Lys Tyr Tyr
E--> 5731 130 135 140
5732 Val Glu Pro Arg Asn Ala Ser Asp His Val Arg Lys Asn Lys Ala Asp
E--> 5733 145 150 155 160
5734 Gln Asp Ser Lys Pro Asp Glu Asp Lys Glu His Asp Glu Val Ser Glu
E--> 5735 165 170 175
5736 Pro Thr His Pro Glu Ser Asp Glu Lys Glu Asn His Ala Gly Leu Asn
E--> 5737 180 185 190
5738 Pro Ser Ala Asp Asn Leu Tyr Lys Pro Ser Thr Asp Thr Glu Glu Thr
E--> 5739 195 200 205
5740 Glu Glu Glu Ala Glu Asp Thr Thr Asp Glu Ala Glu Ile Pro Gly Thr
E--> 5741 210 215 220
5742 Pro Ser Ile Arg Gln Asn Ala Met Glu Thr Leu Thr Gly Leu Lys Ser
E--> 5743 225 230 235 240
5744 Ser Leu Leu Leu Gly Thr Lys Asp Asn Asn Thr Ile Ser Ala Glu Val
E--> 5745 245 250 255
5746 Asp Ser Leu Leu Ala Leu Leu Lys Glu Ser Gln Pro Ala Pro Ile Gln
E--> 5747 260 265 270
5748 Ser Gly Pro Gln Ile Gly Gln Pro Thr Leu Pro Asn Asn Ser Leu Ala
E--> 5749 275 280 285
5750 Thr Pro Ser Pro Ser Leu Pro Ile Asn Pro Gly Thr Ser His Glu Lys
E--> 5751 290 295 300
5752 His Glu Glu Asp Gly Tyr Gly Phe Asp Ala Asn Arg Ile Ile Ala Glu
E--> 5753 305 310 315 320
5754 Asp Glu Ser Gly Phe Val Met Ser Tyr Phe Phe Lys Lys Asp Leu Thr
E--> 5755 325 330 335
5756 Glu Glu Gln Ile Lys Ala Ala Gln Lys His Leu Glu Glu Val Lys Thr

```

*misaligned
(some error)*

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/884,465

DATE: 11/20/2001

TIME: 09:41:55

Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

```

E--> 5757          340          345          350
      5758 Ser His Asn Gly Leu Asp Ser Leu Ser Ser His Glu Gln Asp Tyr Pro
E--> 5759          355          360          365
      5760 Gly Asn Ala Lys Glu Met Lys Asp Leu Asp Lys Lys Ile Glu Glu Lys
E--> 5761          370          375          380
      5762 Ile Ala Gly Ile Met Lys Gln Tyr Gly Val Lys Arg Glu Ser Ile Val
E--> 5763 385          390          395          400
      5764 Val Asn Lys Glu Lys Asn Ala Ile Ile Tyr Pro His Gly Asp His His
E--> 5765          405          410          415
      5766 His Ala Asp Pro Ile Asp Glu His Lys Pro Val Gly Ile Gly His Ser
E--> 5767          420          425          430
      5768 His Ser Asn Tyr Glu Leu Phe Lys Pro Glu Glu Gly Val Ala Lys Lys
E--> 5769          435          440          445
      5770 Glu Gly Asn Lys Val Tyr Thr Gly Glu Glu Leu Thr Asn Val Val Asn
E--> 5771          450          455          460
      5772 Leu Leu Lys Asn Ser Thr Phe Asn Asn Gln Asn Phe Thr Leu Ala Asn
E--> 5773 465          470          475          480
      5774 Gly Gln Lys Arg Val Ser Phe Ser Phe Pro Glu Leu Glu Lys Lys
E--> 5775          485          490          495
      5776 Leu Gly Ile Asn Met Leu Val Lys Leu Ile Thr Pro Asp Gly Lys Val
E--> 5777          500          505          510
      5778 Leu Glu Lys Val Ser Gly Lys Val Phe Gly Glu Gly Val Gly Asn Ile
E--> 5779          515          520          525
      5780 Ala Asn Phe Glu Leu Asp Gln Pro Tyr Leu Pro Gly Gln Thr Phe Lys
E--> 5781          530          535          540
      5782 Tyr Thr Ile Ala Ser Lys Asp Tyr Pro Glu Val Ser Tyr Asp Gly Thr
E--> 5783 545          550          555          560
      5784 Phe Thr Val Pro Thr Ser Leu Ala Tyr Lys Met Ala Ser Gln Thr Ile
E--> 5785          565          570          575
      5786 Phe Tyr Pro Phe His Ala Gly Asp Thr Tyr Leu Arg Val Asn Pro Gln
E--> 5787          580          585          590
      5788 Phe Ala Val Pro Lys Gly Thr Asp Ala Leu Val Arg Val Phe Asp Glu
E--> 5789          595          600          605
      5790 Phe His Gly Asn Ala Tyr Leu Glu Asn Asn Tyr Lys Val Gly Glu Ile
E--> 5791          610          615          620
      5792 Lys Leu Pro Ile Pro Lys Leu Asn Gln Gly Thr Thr Arg Thr Ala Gly
E--> 5793 625          630          635          640
      5794 Asn Lys Ile Pro Val Thr Phe Met Ala Asn Ala Tyr Leu Asp Asn Gln
E--> 5795          645          650          655
      5796 Ser Thr Tyr Ile Val Glu Val Pro Ile Leu Glu Lys Glu Asn Gln Thr
E--> 5797          660          665          670
      5798 Asp Lys Pro Ser Ile Leu Pro Gln Phe Lys Arg Asn Lys Ala Gln Glu
E--> 5799          675          680          685
      5800 Asn Ser Lys Leu Asp Glu Lys Val Glu Glu Pro Lys Thr Ser Glu Lys
E--> 5801          690          695          700
      5802 Val Glu Lys Glu Lys Leu Ser Glu Thr Gly Asn Ser Thr Ser Asn Ser
E--> 5803 705          710          715          720
      5804 Thr Leu Glu Glu Val Pro Thr Val Asp Pro Val Gln Glu Lys Val Ala
E--> 5805          725          730          735

```

Misaligned

0570
1207

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/884,465

DATE: 11/20/2001

TIME: 09:41:55

Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

```

5806 Lys Phe Ala Glu Ser Tyr Gly Met Lys Leu Glu Asn Val Leu Phe Asn
E--> 5807          740          745          750
5808 Met Asp Gly Thr Ile Glu Leu Tyr Leu Pro Ser Gly Glu Val Ile Lys
E--> 5809          755          760          765
5810 Lys Asn Met Ala Asp Phe Thr Gly Glu Ala Pro Gln Gly Asn Gly Glu
E--> 5811          770          775          780
5812 Asn Lys Pro Ser Glu Asn Gly Lys Val Ser Thr Gly Thr Val Glu Asn
E--> 5813 785          790          795          800
5814 Gln Pro Thr Glu Asn Lys Pro Ala Asp Ser Leu Pro Glu Ala Pro Asn
E--> 5815          805          810          815
5816 Glu Lys Pro Val Lys Pro Glu Asn Ser Thr Asp Asn Gly Met Leu Asn
E--> 5817          820          825          830
5818 Pro Glu Gly Asn Val Gly Ser Asp Pro Met Leu Asp Pro Ala Leu Glu
E--> 5819          835          840          845
5820 Glu Ala Pro Ala Val Asp Pro Val Gln Glu Lys Leu Glu Lys Phe Thr
E--> 5821          850          855          860
5822 Ala Ser Tyr Gly Leu Gly Leu Asp Ser Val Ile Phe Asn Met Asp Gly
E--> 5823 865          870          875          880
5824 Thr Ile Glu Leu Arg Leu Pro Ser Gly Glu Val Ile Lys Lys Asn Leu
E--> 5825          885          890          895
5826 Ser Asp Phe Ile Ala
E--> 5827          900
9264 <210> SEQ ID NO: 378
9265 <211> LENGTH: 1378
9266 <212> TYPE: PRT
9267 <213> ORGANISM: Unknown
9269 <220> FEATURE:
9270 <223> OTHER INFORMATION: NEW 26
9272 <221> NAME/KEY: VARIANT
9273 <222> LOCATION: (1)...(1)
9274 <223> OTHER INFORMATION: Xaa = Methionine or nothing
9276 <221> NAME/KEY: VARIANT
9277 <222> LOCATION: (570)...(570)
9278 <223> OTHER INFORMATION: Xaa = Glycine or nothing
9280 <221> NAME/KEY: VARIANT
9281 <222> LOCATION: (571)...(571)
9282 <223> OTHER INFORMATION: Xaa = Proline or nothing
9284 <400> SEQUENCE: 378
W--> 9285 Xaa Glu Asn Ile Ser Ser Leu Leu Arg Glu Leu Tyr Ala Lys Pro Leu
9286 1          5          10          15
9287 Ser Glu Arg His Val Glu Ser Asp Gly Leu Ile Phe Asp Pro Ala Gln
9288          20          25          30
9289 Ile Thr Ser Arg Thr Ala Arg Gly Val Ala Val Pro His Gly Asn His
9290          35          40          45
9291 Tyr His Phe Ile Pro Tyr Glu Gln Met Ser Glu Leu Glu Lys Arg Ile
9292          50          55          60
9293 Ala Arg Ile Ile Pro Leu Arg Tyr Arg Ser Asn His Trp Val Pro Asp
9294 65          70          75          80
9295 Ser Arg Pro Glu Gln Pro Ser Pro Gln Ser Thr Pro Glu Pro Ser Pro

```

Misaligned

RAW SEQUENCE LISTING

DATE: 11/20/2001

PATENT APPLICATION: US/09/884,465

TIME: 09:41:56

Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

9296				85				90				95				
9297	Ser	Leu	Gln	Pro	Ala	Pro	Asn	Pro	Gln	Pro	Ala	Pro	Ser	Asn	Pro	Ile
9298				100				105				110				
9299	Asp	Glu	Lys	Leu	Val	Lys	Glu	Ala	Val	Arg	Lys	Val	Gly	Asp	Gly	Tyr
9300			115					120				125				
9301	Val	Phe	Glu	Glu	Asn	Gly	Val	Ser	Arg	Tyr	Ile	Pro	Ala	Lys	Asp	Leu
9302		130					135				140					
9303	Ser	Ala	Glu	Thr	Ala	Ala	Gly	Ile	Asp	Ser	Lys	Leu	Ala	Lys	Gln	Glu
9304	145					150				155					160	
9305	Ser	Leu	Ser	His	Lys	Leu	Gly	Ala	Lys	Lys	Thr	Asp	Leu	Pro	Ser	Ser
9306				165					170			175				
9307	Asp	Arg	Glu	Phe	Tyr	Asn	Lys	Ala	Tyr	Asp	Leu	Leu	Ala	Arg	Ile	His
9308			180						185			190				
9309	Gln	Asp	Leu	Leu	Asp	Asn	Lys	Gly	Arg	Gln	Val	Asp	Phe	Glu	Val	Leu
9310			195					200				205				
9311	Asp	Asn	Leu	Leu	Glu	Arg	Leu	Lys	Asp	Val	Ser	Ser	Asp	Lys	Val	Lys
9312		210					215				220					
9313	Leu	Val	Asp	Asp	Ile	Leu	Ala	Phe	Leu	Ala	Pro	Ile	Arg	His	Pro	Glu
9314	225					230				235					240	
9315	Arg	Leu	Gly	Lys	Pro	Asn	Ala	Gln	Ile	Thr	Tyr	Thr	Asp	Asp	Glu	Ile
9316				245					250			255				
9317	Gln	Val	Ala	Lys	Leu	Ala	Gly	Lys	Tyr	Thr	Thr	Glu	Asp	Gly	Tyr	Ile
9318			260					265				270				
9319	Phe	Asp	Pro	Arg	Asp	Ile	Thr	Ser	Asp	Glu	Gly	Asp	Ala	Tyr	Val	Thr
9320			275					280				285				
9321	Pro	His	Met	Thr	His	Ser	His	Trp	Ile	Lys	Lys	Asp	Ser	Leu	Ser	Glu
9322		290					295				300					
9323	Ala	Glu	Arg	Ala	Ala	Ala	Gln	Ala	Tyr	Ala	Lys	Glu	Lys	Gly	Leu	Thr
9324	305					310				315					320	
9325	Pro	Pro	Ser	Thr	Asp	His	Gln	Asp	Ser	Gly	Asn	Thr	Glu	Ala	Lys	Gly
9326				325					330			335				
9327	Ala	Glu	Ala	Ile	Tyr	Asn	Arg	Val	Lys	Ala	Ala	Lys	Lys	Val	Pro	Leu
9328			340					345				350				
9329	Asp	Arg	Met	Pro	Tyr	Asn	Leu	Gln	Tyr	Thr	Val	Glu	Val	Lys	Asn	Gly
9330			355				360				365					
9331	Ser	Leu	Ile	Ile	Pro	His	Tyr	Asp	His	Tyr	His	Asn	Ile	Lys	Phe	Glu
9332		370					375				380					
9333	Trp	Phe	Asp	Glu	Gly	Leu	Tyr	Glu	Ala	Pro	Lys	Gly	Tyr	Ser	Leu	Glu
9334	385					390				395					400	
9335	Asp	Leu	Leu	Ala	Thr	Val	Lys	Tyr	Tyr	Val	Glu	His	Pro	Asn	Glu	Arg
9336				405					410			415				
9337	Pro	His	Ser	Asp	Asn	Gly	Phe	Gly	Asn	Ala	Ser	Asp	His	Val	Arg	Lys
9338			420					425				430				
9339	Asn	Lys	Ala	Asp	Gln	Asp	Ser	Lys	Pro	Asp	Glu	Asp	Lys	Glu	His	Asp
9340			435					440				445				
9341	Glu	Val	Ser	Glu	Pro	Thr	His	Pro	Glu	Ser	Asp	Glu	Lys	Glu	Asn	His
9342		450					455				460					
9343	Ala	Gly	Leu	Asn	Pro	Ser	Ala	Asp	Asn	Leu	Tyr	Lys	Pro	Ser	Thr	Asp
9344	465					470				475					480	

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/884,465

DATE: 11/20/2001

TIME: 09:41:56

Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

9345 Thr Glu Glu Thr Glu Glu Glu Ala Glu Asp Thr Thr Asp Glu Ala Glu
 9346 485 490 495
 9347 Ile Pro Gln Val Glu Asn Ser Val Ile Asn Ala Lys Ile Ala Asp Ala
 9348 500 505 510
 9349 Glu Ala Leu Leu Glu Lys Val Thr Asp Pro Ser Ile Arg Gln Asn Ala
 9350 515 520 525
 9351 Met Glu Thr Leu Thr Gly Leu Lys Ser Ser Leu Leu Leu Gly Thr Lys
 9352 530 535 540
 9353 Asp Asn Asn Thr Ile Ser Ala Glu Val Asp Ser Leu Leu Ala Leu Leu
 9354 545 550 555 560
 W--> 9355 Lys Glu Ser Gln Pro Ala Pro Ile Gln Xaa Xaa Asn Met Gln Pro Ser
 9356 565 570 575
 9357 Gln Leu Ser Tyr Ser Ser Thr Ala Ser Asp Asn Asn Thr Gln Ser Val
 9358 580 585 590
 9359 Ala Lys Gly Ser Thr Ser Lys Pro Ala Asn Lys Ser Glu Asn Leu Gln
 9360 595 600 605
 9361 Ser Leu Leu Lys Glu Leu Tyr Asp Ser Pro Ser Ala Gln Arg Tyr Ser
 9362 610 615 620
 9363 Glu Ser Asp Gly Leu Val Phe Asp Pro Ala Lys Ile Ile Ser Arg Thr
 9364 625 630 635 640
 9365 Pro Asn Gly Val Ala Ile Pro His Gly Asp His Tyr His Phe Ile Pro
 9366 645 650 655
 9367 Tyr Ser Lys Leu Ser Ala Leu Glu Glu Lys Ile Ala Arg Met Val Pro
 9368 660 665 670
 9369 Ile Ser Gly Thr Gly Ser Thr Val Ser Thr Asn Ala Lys Pro Asn Glu
 9370 675 680 685
 9371 Val Val Ser Ser Leu Gly Ser Leu Ser Ser Asn Pro Ser Ser Leu Thr
 9372 690 695 700
 9373 Thr Ser Lys Glu Leu Ser Ser Ala Ser Asp Gly Tyr Ile Phe Asn Pro
 9374 705 710 715 720
 9375 Lys Asp Ile Val Glu Glu Thr Ala Thr Ala Tyr Ile Val Arg His Gly
 9376 725 730 735
 9377 Asp His Phe His Tyr Ile Pro Lys Ser Asn Gln Ile Gly Gln Pro Thr
 9378 740 745 750
 9379 Leu Pro Asn Asn Ser Leu Ala Thr Pro Ser Pro Ser Leu Pro Ile Asn
 9380 755 760 765
 9381 Pro Gly Thr Ser His Glu Lys His Glu Glu Asp Gly Tyr Gly Phe Asp
 9382 770 775 780
 9383 Ala Asn Arg Ile Ile Ala Glu Asp Glu Ser Gly Phe Val Met Ser His
 9384 785 790 795 800
 9385 Gly Asp His Asn His Tyr Phe Phe Lys Lys Asp Leu Thr Glu Glu Gln
 9386 805 810 815
 9387 Ile Lys Ala Ala Gln Lys His Leu Glu Glu Val Lys Thr Ser His Asn
 9388 820 825 830
 9389 Gly Leu Asp Ser Leu Ser Ser His Glu Gln Asp Tyr Pro Gly Asn Ala
 9390 835 840 845
 9391 Lys Glu Met Lys Asp Leu Asp Lys Lys Ile Glu Glu Lys Ile Ala Gly
 9392 850 855 860
 9393 Ile Met Lys Lys Gln Tyr Gly Val Lys Arg Glu Ser Ile Val Val Asn Lys

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/884,465

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Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

9394	865		870		875		880
9395	Glu	Lys	Asn	Ala	Ile	Tyr	Pro
9396			885		890		895
9397	Pro	Ile	Asp	Glu	His	Lys	Pro
9398			900		905		910
9399	Tyr	Glu	Leu	Phe	Lys	Pro	Glu
9400			915		920		925
9401	Lys	Val	Tyr	Thr	Gly	Glu	Glu
9402			930		935		940
9403	Asn	Ser	Thr	Phe	Asn	Asn	Gln
9404	945				950		955
9405	Arg	Val	Ser	Phe	Ser	Phe	Pro
E--> 9406			965		970		975
E--> 9407	Lys	Leu	Ile	Thr	Pro	Asp	Gly
E--> 9408			980		985		990
9409	Val	Ser	Gly	Lys	Val	Phe	Gly
E--> 9410			995		1000		1005
9411	Glu	Leu	Asp	Gln	Pro	Tyr	Leu
E--> 9412			1010		1015		1020
9413	Ala	Ser	Lys	Asp	Tyr	Pro	Glu
E--> 9414	1025				1030		1035
9415	Pro	Thr	Ser	Leu	Ala	Tyr	Lys
E--> 9416			1045		1050		1055
9417	Phe	His	Ala	Gly	Asp	Thr	Tyr
E--> 9418			1060		1065		1070
9419	Pro	Lys	Gly	Thr	Asp	Ala	Leu
E--> 9420			1075		1080		1085
9421	Asn	Ala	Tyr	Leu	Glu	Asn	Asn
E--> 9422			1090		1095		1100
9423	Ile	Pro	Lys	Leu	Asn	Gln	Gly
E--> 9424	1105				1110		1115
9425	Pro	Val	Thr	Phe	Met	Ala	Asn
E--> 9426			1125		1130		1135
9427	Ile	Val	Glu	Val	Pro	Ile	Leu
E--> 9428			1140		1145		1150
9429	Ser	Ile	Leu	Pro	Gln	Phe	Lys
E--> 9430			1155		1160		1165
9431	Leu	Asp	Glu	Lys	Val	Glu	Glu
E--> 9432			1170		1175		1180
9433	Glu	Lys	Leu	Ser	Glu	Thr	Gly
E--> 9434	1185				1190		1195
9435	Glu	Val	Pro	Thr	Val	Asp	Pro
E--> 9436			1205		1210		1215
9437	Glu	Ser	Tyr	Gly	Met	Lys	Leu
E--> 9438			1220		1225		1230
9439	Thr	Ile	Glu	Leu	Tyr	Leu	Pro
E--> 9440			1235		1240		1245
9441	Ala	Asp	Phe	Thr	Gly	Glu	Ala
E--> 9442			1250		1255		1260

Asn Met Leu Val

Misaligned

RAW SEQUENCE LISTING

DATE: 11/20/2001

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TIME: 09:41:56

Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

```

9443 Ser Glu Asn Gly Lys Val Ser Thr Gly Thr Val Glu Asn Gln Pro Thr
E--> 9444 1265          1270          1275          1280
9445 Glu Asn Lys Pro Ala Asp Ser Leu Pro Glu Ala Pro Asn Glu Lys Pro
E--> 9446          1285          1290          1295
9447 Val Lys Pro Glu Asn Ser Thr Asp Asn Gly Met Leu Asn Pro Glu Gly
E--> 9448          1300          1305          1310
9449 Asn Val Gly Ser Asp Pro Met Leu Asp Pro Ala Leu Glu Glu Ala Pro
E--> 9450          1315          1320          1325
9451 Ala Val Asp Pro Val Gln Glu Lys Leu Glu Lys Phe Thr Ala Ser Tyr
E--> 9452          1330          1335          1340
9453 Gly Leu Gly Leu Asp Ser Val Ile Phe Asn Met Asp Gly Thr Ile Glu
E--> 9454 1345          1350          1355          1360
9455 Leu Arg Leu Pro Ser Gly Glu Val Ile Lys Lys Asn Leu Ser Asp Phe
E--> 9456          1365          1370          1375
9457 Ile Ala
9626 <210> SEQ ID NO: 380
9627 <211> LENGTH: 1139
9628 <212> TYPE: PRT
9629 <213> ORGANISM: Unknown
9631 <220> FEATURE:
9632 <223> OTHER INFORMATION: NEW 28
9634 <221> NAME/KEY: VARIANT
9635 <222> LOCATION: (1)...(1)
9636 <223> OTHER INFORMATION: Xaa = Methionine or nothing
9638 <221> NAME/KEY: VARIANT
9639 <222> LOCATION: (570)...(570)
9640 <223> OTHER INFORMATION: Xaa = Glycine or nothing
9642 <221> NAME/KEY: VARIANT
9643 <222> LOCATION: (571)...(571)
9644 <223> OTHER INFORMATION: Xaa = Proline or nothing
9646 <400> SEQUENCE: 380
W--> 9647 Xaa Glu Asn Ile Ser Ser Leu Leu Arg Glu Leu Tyr Ala Lys Pro Leu
9648 1          5          10          15
9649 Ser Glu Arg His Val Glu Ser Asp Gly Leu Ile Phe Asp Pro Ala Gln
9650          20          25          30
9651 Ile Thr Ser Arg Thr Ala Arg Gly Val Ala Val Pro His Gly Asn His
9652          35          40          45
9653 Tyr His Phe Ile Pro Tyr Glu Gln Met Ser Glu Leu Glu Lys Arg Ile
9654          50          55          60
9655 Ala Arg Ile Ile Pro Leu Arg Tyr Arg Ser Asn His Trp Val Pro Asp
9656 65          70          75          80
9657 Ser Arg Pro Glu Gln Pro Ser Pro Gln Ser Thr Pro Glu Pro Ser Pro
9658          85          90          95
9659 Ser Leu Gln Pro Ala Pro Asn Pro Gln Pro Ala Pro Ser Asn Pro Ile
9660          100         105         110
9661 Asp Glu Lys Leu Val Lys Glu Ala Val Arg Lys Val Gly Asp Gly Tyr
9662          115         120         125
9663 Val Phe Glu Glu Asn Gly Val Ser Arg Tyr Ile Pro Ala Lys Asp Leu
9664          130         135         140

```

misaligned

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TIME: 09:41:56

Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

E--> 9665 Ser Ala Glu Thr Ala Ala Gly Ile Asp Ser Lys Leu Ala Lys Gln Glu
 9666 145 150 155 160
 9667 Ser Leu Ser His Lys Leu Gly Ala Lys Lys Thr Asp Leu Pro Ser Ser
 9668 165 170 175
 9669 Asp Arg Glu Phe Tyr Asn Lys Ala Tyr Asp Leu Leu Ala Arg Ile His
 9670 180 185 190
 9671 Gln Asp Leu Leu Asp Asn Lys Gly Arg Gln Val Asp Phe Glu Val Leu
 9672 195 200 205
 9673 Asp Asn Leu Leu Glu Arg Leu Lys Asp Val Ser Ser Asp Lys Val Lys
 9674 210 215 220
 9675 Leu Val Asp Asp Ile Leu Ala Phe Leu Ala Pro Ile Arg His Pro Glu
 9676 225 230 235 240
 9677 Asp Leu Gly Lys Pro Asn Ala Gln Ile Thr Tyr Thr Asp Asp Glu Ile
 9678 245 250 255
 9679 Gln Val Ala Lys Leu Ala Gly Lys Tyr Thr Thr Glu Asp Gly Tyr Ile
 9680 260 265 270
 9681 Phe Asp Pro Arg Asp Ile Thr Ser Asp Glu Gly Asp Ala Tyr Val Thr
 9682 275 280 285
 9683 Pro His Met Thr His Ser His Trp Ile Lys Lys Asp Ser Leu Ser Glu
 9684 290 295 300
 9685 Ala Glu Arg Ala Ala Ala Gln Ala Tyr Ala Lys Glu Lys Gly Leu Thr
 9686 305 310 315 320
 9687 Pro Pro Ser Thr Asp His Gln Asp Ser Gly Asn Thr Glu Ala Lys Gly
 9688 325 330 335
 9689 Ala Glu Ala Ile Tyr Asn Arg Val Lys Ala Ala Lys Lys Val Pro Leu
 9690 340 345 350
 9691 Asp Arg Met Pro Tyr Asn Leu Gln Tyr Thr Val Glu Val Lys Asn Gly
 9692 355 360 365
 9693 Ser Leu Ile Ile Pro His Tyr Asp His Tyr His Asn Ile Lys Phe Glu
 9694 370 375 380
 9695 Trp Phe Asp Glu Gly Leu Tyr Glu Ala Pro Lys Gly Tyr Ser Leu Glu
 9696 385 390 395 400
 9697 Asp Leu Leu Ala Thr Val Lys Tyr Tyr Val Glu His Pro Asn Glu Arg
 9698 405 410 415
 9699 Pro His Ser Asp Asn Gly Phe Gly Asn Ala Ser Asp His Val Arg Lys
 9700 420 425 430
 9701 Asn Lys Ala Asp Gln Asp Ser Lys Pro Asp Glu Asp Lys Glu His Asp
 9702 435 440 445
 9703 Glu Val Ser Glu Pro Thr His Pro Glu Ser Asp Glu Lys Glu Asn His
 9704 450 455 460
 9705 Ala Gly Leu Asn Pro Ser Ala Asp Asn Leu Tyr Lys Pro Ser Thr Asp
 9706 465 470 475 480
 9707 Thr Glu Glu Thr Glu Glu Glu Ala Glu Asp Thr Thr Asp Glu Ala Glu
 9708 485 490 495
 9709 Ile Pro Gln Val Glu Asn Ser Val Ile Asn Ala Lys Ile Ala Asp Ala
 9710 500 505 510
 9711 Glu Ala Leu Leu Glu Lys Val Thr Asp Pro Ser Ile Arg Gln Asn Ala
 9712 515 520 525
 9713 Met Glu Thr Leu Thr Gly Leu Lys Ser Ser Leu Leu Leu Gly Thr Lys

*misnambeing
 misalign?*

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/884,465

DATE: 11/20/2001

TIME: 09:41:56

Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

```

9714      530              535              540
9715 Asp Asn Asn Thr Ile Ser Ala Glu Val Asp Ser Leu Leu Ala Leu Leu
9716 545              550              555              560
W--> 9717 Lys Glu Ser Gln Pro Ala Pro Ile Gln Xaa Xaa Asp Leu Thr Glu Glu
9718              565              570              575
9719 Gln Ile Lys Ala Ala Gln Lys His Leu Glu Glu Val Lys Thr Ser His
9720              580              585              590
9721 Asn Gly Leu Asp Ser Leu Ser Ser His Glu Gln Asp Tyr Pro Gly Asn
9722              595              600              605
9723 Ala Lys Glu Met Lys Asp Leu Asp Lys Lys Ile Glu Glu Lys Ile Ala
9724      610              615              620
9725 Gly Ile Met Lys Gln Tyr Gly Val Lys Arg Glu Ser Ile Val Val Asn
9726 625              630              635              640
9727 Lys Glu Lys Asn Ala Ile Ile Tyr Pro His Gly Asp His His His Ala
9728              645              650              655
9729 Asp Pro Ile Asp Glu His Lys Pro Val Gly Ile Gly His Ser His Ser
9730              660              665              670
9731 Asn Tyr Glu Leu Phe Lys Pro Glu Glu Gly Val Ala Lys Lys Glu Gly
9732              675              680              685
9733 Asn Lys Val Tyr Thr Gly Glu Glu Leu Thr Asn Val Val Asn Leu Leu
9734      690              695              700
9735 Lys Asn Ser Thr Phe Asn Asn Gln Asn Phe Thr Leu Ala Asn Gly Gln
9736 705              710              715              720
9737 Lys Arg Val Ser Phe Ser Phe Pro Pro Glu Leu Glu Lys Lys Leu Gly
9738              725              730              735
9739 Ile Asn Met Leu Val Lys Leu Ile Thr Pro Asp Gly Lys Val Leu Glu
9740              740              745              750
9741 Lys Val Ser Gly Lys Val Phe Gly Glu Gly Val Gly Asn Ile Ala Asn
9742              755              760              765
9743 Phe Glu Leu Asp Gln Pro Tyr Leu Pro Gly Gln Thr Phe Lys Tyr Thr
9744      770              775              780
9745 Ile Ala Ser Lys Asp Tyr Pro Glu Val Ser Tyr Asp Gly Thr Phe Thr
9746 785              790              795              800
9747 Val Pro Thr Ser Leu Ala Tyr Lys Met Ala Ser Gln Thr Ile Phe Tyr
9748              805              810              815
9749 Pro Phe His Ala Gly Asp Thr Tyr Leu Arg Val Asn Pro Gln Phe Ala
9750              820              825              830
9751 Val Pro Lys Gly Thr Asp Ala Leu Val Arg Val Phe Asp Glu Phe His
9752              835              840              845
9753 Gly Asn Ala Tyr Leu Glu Asn Asn Tyr Lys Val Gly Glu Ile Lys Leu
9754      850              855              860
9755 Pro Ile Pro Lys Leu Asn Gln Gly Thr Thr Arg Thr Ala Gly Asn Lys
9756 865              870              875              880
9757 Ile Pro Val Thr Phe Met Ala Asn Ala Tyr Leu Asp Asn Gln Ser Thr
9758              885              890              895
9759 Tyr Ile Val Glu Val Pro Ile Leu Glu Lys Glu Asn Gln Thr Asp Lys
9760              900              905              910
9761 Pro Ser Ile Leu Pro Gln Phe Lys Arg Asn Lys Ala Gln Glu Asn Ser
9762              915              920              925

```

RAW SEQUENCE LISTING

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Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

```

9763 Lys Leu Asp Glu Lys Val Glu Glu Pro Lys Thr Ser Glu Lys Val Glu
9764      930      935      940
9765 Lys Glu Lys Leu Ser Glu Thr Gly Asn Ser Thr Ser Asn Ser Thr Leu
9766 945      950      955      960
9767 Glu Glu Val Pro Thr Val Asp Pro Val Gln Glu Lys Val Ala Lys Phe
9768      965      970      975
9769 Ala Glu Ser Tyr Gly Met Lys Leu Glu Asn Val Leu Phe Asn Met Asp
9770      980      985      990
9771 Gly Thr Ile Glu Leu Tyr Leu Pro Ser Gly Glu Val Ile Lys Lys Asn
9772      995      1000      1005
9773 Met Ala Asp Phe Thr Gly Glu Ala Pro Gln Gly Asn Gly Glu Asn Lys
9774      1010      1015      1020
9775 Pro Ser Glu Asn Gly Lys Val Ser Thr Gly Thr Val Glu Asn Gln Pro
9776 1025      1030      1035      1040
9777 Thr Glu Asn Lys Pro Ala Asp Ser Leu Pro Glu Ala Pro Asn Glu Lys
9778      1045      1050      1055
9779 Pro Val Lys Pro Glu Asn Ser Thr Asp Asn Gly Met Leu Asn Pro Glu
9780      1060      1065      1070
9781 Gly Asn Val Gly Ser Asp Pro Met Leu Asp Pro Ala Leu Glu Glu Ala
9782      1075      1080      1085
9783 Pro Ala Val Asp Pro Val Gln Glu Lys Leu Glu Lys Phe Thr Ala Ser
9784      1090      1095      1100
9785 Tyr Gly Leu Gly Leu Asp Ser Val Ile Phe Asn Met Asp Gly Thr Ile
9786 1105      1110      1115      1120
9787 Glu Leu Arg Leu Pro Ser Gly Glu Val Ile Lys Lys Asn Leu Ser Asp
9788      1125      1130      1135
9789 Phe Ile Ala

```

VERIFICATION SUMMARY

DATE: 11/20/2001

PATENT APPLICATION: US/09/884,465

TIME: 09:41:57

Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

L:16 M:270 C: Current Application Number differs, Replaced Current Application Number
L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:584 M:282 W: Numeric Field Identifier Missing, <212> is required.
L:1625 M:254 E: No. of Bases conflict, LENGTH:Input:30 Counted:31 SEQ:72
L:1641 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (74) SEQUENCE:
L:1646 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (75) SEQUENCE:
L:1651 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (76) SEQUENCE:
L:1656 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (77) SEQUENCE:
L:1661 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (78) SEQUENCE:
L:1666 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (79) SEQUENCE:
L:1671 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (80) SEQUENCE:
L:1676 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (81) SEQUENCE:
L:1681 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (82) SEQUENCE:
L:1686 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (83) SEQUENCE:
L:1691 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (84) SEQUENCE:
L:1696 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (85) SEQUENCE:
L:1701 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (86) SEQUENCE:
L:1706 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (87) SEQUENCE:
L:1711 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (88) SEQUENCE:
L:1716 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (89) SEQUENCE:
L:1721 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (90) SEQUENCE:
L:1726 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (91) SEQUENCE:
L:1731 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (92) SEQUENCE:
L:1736 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (93) SEQUENCE:
L:1741 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (94) SEQUENCE:
L:1746 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (95) SEQUENCE:
L:1751 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (96) SEQUENCE:
L:1756 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (97) SEQUENCE:
L:1761 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (98) SEQUENCE:
L:1766 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (99) SEQUENCE:
L:1771 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (100) SEQUENCE:
L:1776 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (101) SEQUENCE:
L:1781 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (102) SEQUENCE:
L:1786 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (103) SEQUENCE:
L:1791 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (104) SEQUENCE:
L:1796 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (105) SEQUENCE:
L:1801 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (106) SEQUENCE:
L:1806 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (107) SEQUENCE:
L:1811 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (108) SEQUENCE:
L:1816 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (109) SEQUENCE:
L:1821 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (110) SEQUENCE:
L:1826 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (111) SEQUENCE:
L:1831 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (112) SEQUENCE:
L:1836 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (113) SEQUENCE:
L:1841 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (114) SEQUENCE:
L:1846 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (115) SEQUENCE:
L:1851 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (116) SEQUENCE:
L:1856 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (117) SEQUENCE:

VERIFICATION SUMMARY

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TIME: 09:41:57

Input Set : N:\EBONY'S\ES.txt

Output Set: N:\CRF3\11202001\I884465.raw

L:1861 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (118) SEQUENCE:
L:1866 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (119) SEQUENCE:
L:1871 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (120) SEQUENCE:
L:1876 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (121) SEQUENCE:
L:1881 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (122) SEQUENCE:
L:1886 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (123) SEQUENCE:
L:4726 M:283 W: Missing Blank Line separator, <400> field identifier
L:4949 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:336
M:332 Repeated in SeqNo=336
L:4963 M:252 E: No. of Seq. differs, <211>LENGTH:Input:894 Found:878 SEQ:336
L:5715 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:343
M:332 Repeated in SeqNo=343
L:5827 M:252 E: No. of Seq. differs, <211>LENGTH:Input:901 Found:885 SEQ:343
L:8989 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:376
L:9041 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:376
L:9137 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:377
L:9207 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:377
L:9285 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:378
L:9355 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:378
L:9406 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:378
M:332 Repeated in SeqNo=378
L:9481 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:379
L:9523 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:379
L:9647 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:380
L:9678 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:380
L:9717 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:380
L:9812 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:381
L:9864 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:381
L:9990 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:382
L:10058 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:382
L:10184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:383
L:10252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:383
L:10347 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:384
L:10389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:384
L:22 M:203 E: No. of Seq. differs, <160> Number Of Sequences:Input (384) Counted (383)